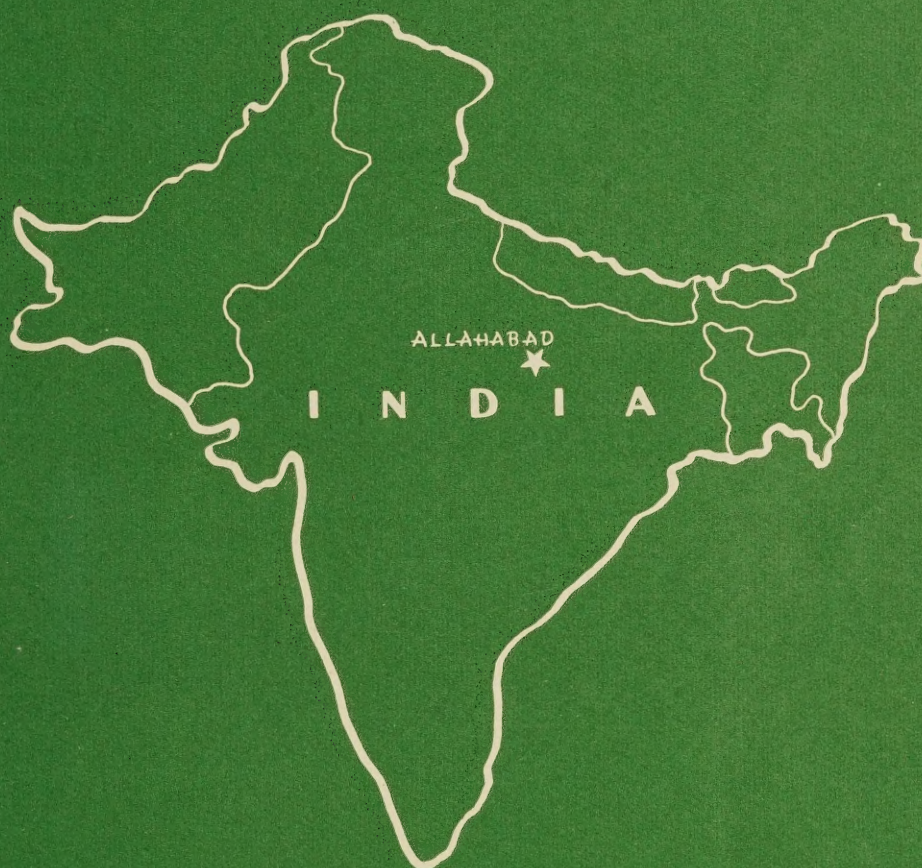


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# ALLAHABAD AGRICULTURAL INSTITUTE



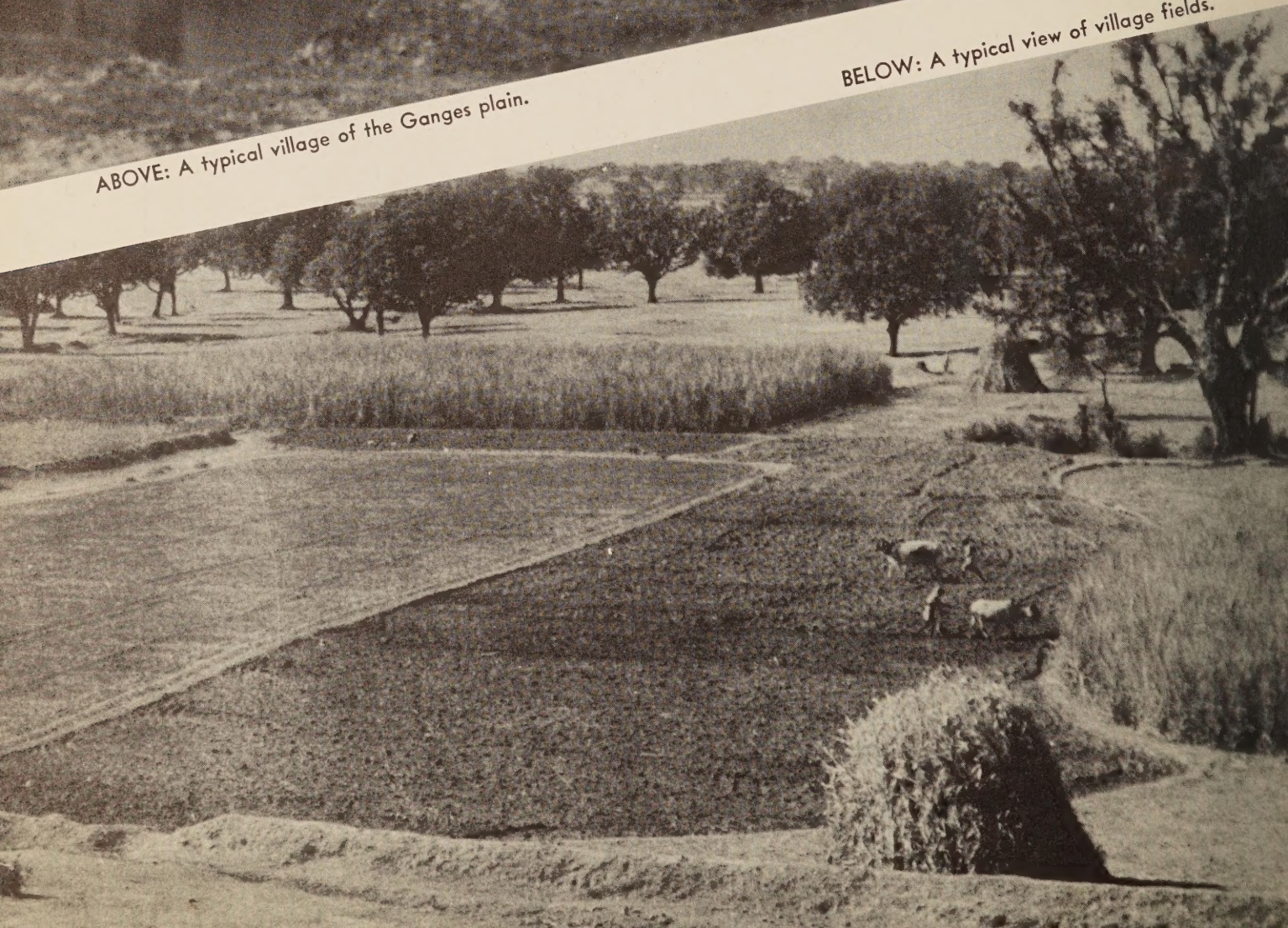
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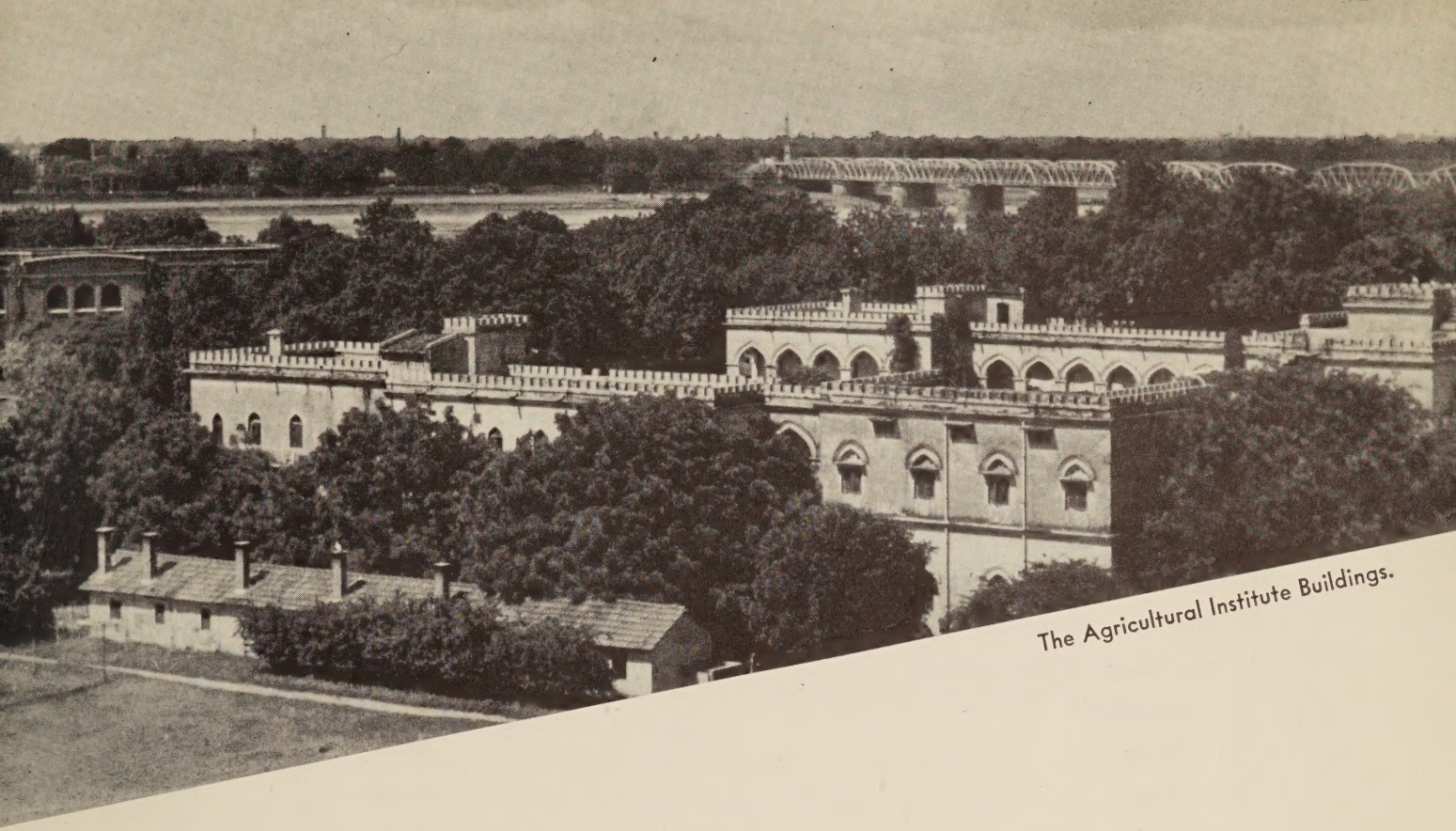


ABOVE: A typical village of the Ganges plain.

BELOW: A typical view of village fields.







*The Agricultural Institute Buildings.*

# **Allahabad Agricultural Institute**

**ALLAHABAD, INDIA**

**PUBLISHED BY THE BOARD OF FOUNDERS, INC.**

**Room 1021 156 Fifth Avenue New York 10**

1180



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## FOREWORD

**ONE-SIXTH** of the people of the world live in India. Under a remarkable new constitution, they are trying valiantly to learn democracy and to create a society in which men may be free.

In this formidable task three problems stand out:

- (1) to produce enough food to feed her people,
- (2) to make freedom real in her villages, for 85% of her people live in half a million small agricultural villages,
- (3) to create a leadership for the development of this rural life.

The Allahabad Agricultural Institute stands at the center of these tasks. Its research program attacks specific problems of agricultural improvement. It gives students university training in agricultural and junior college training in home economics. Its extension service works directly with farmers in their own villages.

The Institute is an independent project, yet much of its research is conducted in cooperation with the Indian government. In its university teaching it functions as an internal college of the University of Allahabad, a state institution. Its extension is carried on in cooperation with the Government and with many church and missionary programs.

The Institute has made outstanding contributions to Indian agriculture and rural life since it was founded by Sam Higginbottom forty years ago. Today it has many, but not all, of the resources needed to make much greater contributions in the future.

This brochure is an outline of the policy and program of the Allahabad Agricultural Institute, and a statement of its current needs.









## I. THE BACKGROUND OF RURAL INDIA

**Agricultural Pattern:** Although India stands seventh in industrial production among the nations of the world, she is still overwhelmingly an agricultural land, and must be for many years to come. Eighty-five percent of her gainfully employed workers get at least part of their income from agriculture.

Since India is a large country, conditions vary greatly between different regions. Let us look at the agricultural practices in one region: the central Ganges plain in North India.

Farmers live in adobe houses bunched together in a third of a million small villages. The houses have no sanitary facilities, no running water, and, of course, no electricity. In these adobe homes, which usually consist of two or three enclosed rooms with no windows, a narrow roofed porch, and a small open courtyard, the family—usually of at least three generations—and its livestock live together. Here the women grind the grain into flour and prepare the family's food over a tiny open fire, using cow dung for fuel. Here, at night, members of the family sleep on simple rope-strung cots. Here, at adobe mangers in the corners of the courtyard, the bullocks and the cows or buffaloes or goats are tethered. Here the farmer chops fodder (usually stover) for his stock.

Most farms range in size from one-tenth of an acre to fifteen acres. The average is three and one-half to twelve and one-half acres in different parts of the region. A "farm" is not a single block of contiguous fields but a collection of four to fifteen tiny plots, scattered over the whole village area. On highly fertile irri-

gated fields near the village, three crops are grown each year. On less fertile distant fields, one crop per year is the limit.

Cultivation is carried on with simple implements: a plow hewn out of a block of wood and fitted with a steel tip, a hand weeding tool about the size of a putty knife, a hand sickle about five inches across, a hoe-shaped spade, and a small log drag for breaking clods. The plow is pulled by bullocks or by water-buffaloes.

Because India's ancient culture treats animals more as members of the family than as natural resources, the livestock population of the country is high; little is done to eliminate unprofitable animals. India has one-fourth of the cattle of the world. (The average milk production of the cows is about one-tenth that of cattle in the United States.) These cattle, as well as many predatory birds and animals, are a further drain on the food production of the village fields. The demand for fodder is so great that the straw of a wheat crop, as well as the grain, is a valuable crop. Also, this demand for fodder results in feeding all weeds cut from the fields, and in pasturing the meager stubble which remains after crops are cut. This is one reason for the very low content of organic matter in North Indian soils. Another reason is that fuel is so scarce that it is general practice to use cow dung as fuel in the home.

Most farmers on the Ganges plain have a caste handicraft occupation in addition to being cultivators. One may be a leather-worker, one an oil-presser, one a carpenter, one a laundryman, one a street sweeper. About ninety



percent of the exchange of goods and services within the village is in the form of traditional exchanges between families of different caste occupations. So each farmer sells only a small fraction of what he produces, and chooses the crops he will grow much more on the basis of family needs than on the basis of market prices.

**The Ancient Culture:** Long before the rise of European civilization India had an ordered society and an extensive culture.

This ancient culture bore the imprint of the early days in which it developed. For one thing, it took for granted a static economy. It grew up in isolated villages, spread across a wide land. It assumed permanence for the simple handicraft occupations it knew. It assumed that the tools it had were all it would ever have.

And it antedated that understanding of man, of God, and of the physical universe which came to the earth in Jesus Christ. Men in ancient India sought to know God through the experiences known to them. Reincarnation and transmigration were part of their explanation of how divine justice is achieved. This was combined with acceptance of their handicraft economy in such a way that it gave religious sanction to changelessness. Religious value was given to social arrangements rather than to persons. Virtue consisted of being obedient to social conventions instead of being alert to develop individual talents and to devote these to the service of God and men. As a result tradition was valued above change and individual initiative was discouraged.

**Present-Day Change:** But the isolation of India, even of her remote villages is disappear-

ing. Sea contact with the western world led to trade, to political intercourse (of which colonialism was an early stage), to acquaintance with the ideas of the western world, and to exposure to the Christian Gospel.

Now India is changing rapidly. Railways criss-cross her land. Industries are growing up near her natural resources (already she has the largest steel mill of the Commonwealth of Nations). The old handicraft occupations are declining (and since these caste occupations were inextricably a part of Hindu religious understanding, that religion must change or disappear, too). Many of the educated members of the present generation know much more of western liberalism than of ancient Hinduism. Literacy is rising. Radio and newspapers bring outside events to every city and to more and more villages.

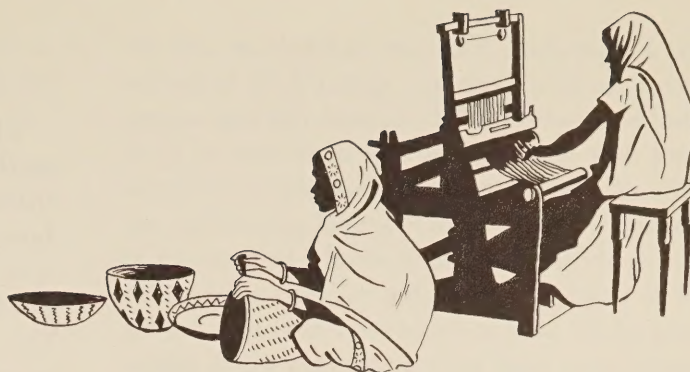
To understand India today it is necessary to keep in mind both these rapid changes and the overwhelming degree to which India's rural population is still living in the old world of tradition, handicraft, and changelessness.

The Allahabad Agricultural Institute is part of the rapid change but must work from day to day with the old order. It works at agricultural improvement. The farmers who must bring this about are still in the old India. The students the Institute trains to become agricultural leaders are part of the new India. If they are to do their job, they must master agricultural science. They must understand both the old and the new India. They must have a personal faith and a personal integrity adequate to the tremendous task of helping to lead India successfully through her great transition.





## II. THE STRATEGY OF THE INSTITUTE



It is obvious that no one project can do anything like the whole job of improving the agriculture of India. Quantitatively, the task can only be achieved by the whole society, working mostly through its government. The problem which faced Dr. Higginbottom and which now faces the Agricultural Institute is how the Allahabad Agricultural Institute can make its own maximum contribution. Our answer is the strategy outlined below.

**I. *We must demonstrate that Indian agriculture can be productive.*** The farm on which the Institute now stands was badly eroded, unproductive riverbank land when it was first purchased. Much of it was not cultivated at all. One of the first steps was to build dams to halt further erosion and to reclaim the gullies. Another was to eradicate heavy wild grasses as a preliminary to cultivation. On the half of the Institute farm next to the river this is virtually completed now and irrigated orchards and fields cover much of the land. On the back half of the farm, purchased much later, reclamation is still in process and provides a continuing demonstration of land development to successive generations of students.

**II. *We must demonstrate the methods by which improved practices are developed.*** Western agricultural practices will not solve India's problems. India needs not American implements—which are good in America because they were developed to meet conditions there—but improved implements which are designed and developed in India to meet con-

ditions in India. India needs cattle bred in India to withstand Indian diseases, to thrive on Indian feedstuffs, and to produce profitable amounts of milk under Indian conditions of management.

This means that we need to develop the techniques which will make distinctively Indian agriculture more productive. To this end, we are developing a line of field implements suited to the needs of North India. We are breeding a strain of cattle adapted to local conditions. We are trying out a large number of plant varieties to test their adaptability. This means also that we must train students not so much in the application of ready-made solutions as in the *methods of finding solutions* to local problems.

**III. *We must train young men and women of India to become leaders of their own people.*** This is important for two reasons: (1) It is the only way to provide leaders in adequate numbers. No conceivable program of leadership from outside of India could provide the number of trained men and women necessary. India has over 500,000 villages! (2) Local leadership, when trained, will be more effective because Indians understand their own people better than people from other lands do. In the last analysis, agricultural improvement in India is a human problem in which knowledge of local psychology is of first importance.

**IV. *We must demonstrate a type of education which accepts students as whole persons, even while giving them the tools***



**of a vocation.** The men and women who become India's farmers, agricultural scientists and house-wives will be citizens in a free society and they will be sons and daughters of God. The same adolescent and post-adolescent years during which they are in school and college are the years in which they should be growing to civic and spiritual maturity. Thus any institution which tries to focus their attention during those years must have a program which stimulates them in the whole range of problems in which, as adults, they will be required to make decisions.

**V. We must demonstrate means of getting improved practices adopted by individual farmers and housewives.** Actually, this is one of the greatest needs in India today. It is one thing to increase the milk production of cattle, to find the technical means of improving soil, to design improved implements. It is quite a different task to lead people to incorporate new methods into their everyday work. Even in a dynamic society where people attach virtue to change this matter of rural extension is hard enough; in a relatively static society like that of India it is doubly difficult.

**VI. We must demonstrate the value of a project in which research, resident instruction, and an extension service are carried on together.** India now has considerable agricultural research, she has agricultural schools and colleges, and she is trying to develop an extension service. But each of these is isolated from the others. The experience of the land-grant colleges in the United States has demonstrated the value of having them combined. Each is more realistic when all are integrated. Consequently, the development of such

an all-round program is an important part of the strategy of the Institute at Allahabad.

**VII. We must found an Institute which, while international, will be at home in India and which will become a permanent feature of the on-going life of the country.**

It is outside concern and outside experience which have brought the Institute into being. The longer the Institute can continue to have an *international* faculty, the greater its contribution will be. At the same time, the Institute must become thoroughly at home in India. The Indian members of the faculty must feel that it is theirs. The Institute must have the feel of the country. The problems it tackles will remain important for many years to come and while the major responsibility for solving these problems must be borne by Indians themselves, an international faculty where men and women from East and West can work together will continue to have great advantages.

There are two strong reasons why this permanence of the Institute should be within the Christian movement in India rather than as a Government institution. The first is that India needs many more strong *private* institutions than she has. Much of the initiative of the Institute is possible because it is free from political domination. In western countries, a continuing pioneering contribution is made by independent private universities. The Institute should continue to be one of these in India. The second reason is that with rapidly increasing scientific knowledge in India, the trend toward secularization of society is strong. If this is to be avoided, India needs *scientific institutions grounded in a religious faith which is consistent with change and growth*. This a non-sectarian Christian Institute can be.





Dr. Sam Higginbottom, founder of the Agricultural Institute, and Dr. O. E. Reed of the U. S. Bureau of Animal Industry, are shown below with one of the Red Scindi heifers from Allahabad.









### III. THE PROGRAM OF THE INSTITUTE



#### A. Research

Up until now, our major research projects have been in four fields: (1) animal husbandry, (2) agricultural engineering, (3) horticulture, and (4) field cultural practices.

**Animal Husbandry:** Our largest research project in animal husbandry is in cattle breeding for milk production. Here we have two projects. One is the improvement of a pure-bred Red Sindhi herd. The other is an attempt to introduce the Jersey capacity for milk production into the Red Sindhi breed of Indian zebu cattle. In this second project, we started with a herd of Red Sindhi cows which averaged 2800 pounds of milk per lactation. These were crossed once to a Jersey bull. The average production of the offspring was 4550 pounds per lactation. Then we began back-breeding to Red Sindhi bulls to regain the desirable characteristics of that breed, even though this involves losing about 200 pounds of production per lactation for each generation of back-breeding.

This project is in its sixteenth year. We are now trying to evaluate results to date and to decide what direction the program should take in the future. At the present time we have 20 pure-bred Red Sindhi cows and 80 Red Sindhi-Jersey crosses of various grades in our herd, in addition to young stock.

This project is being conducted in cooperation with the Bureau of Dairy Industry of the United States Department of Agriculture. We are using some of their animals in our attempt to put the Jersey capacity for milk production into the Red Sindhi. They are using some of our Red Sindhi animals from Allahabad to try

to put resistance to heat and disease, and ability to utilize coarse fodders, into Jersey dairy cattle in the southeastern part of the United States.

Other significant research projects in animal husbandry have been, (1) an investigation into the chemical composition of the milk of Indian cattle, and (2) a study of the feeding value of *juar*, or grain sorghum. Reports of both of these have been published.

At the present time, in addition to the cattle breeding experiment, the department is conducting a three-year study of the cost of improving the quality of dairy products, and is following programs of selective breeding with milk buffaloes, goats, chickens, and sheep. In the case of sheep we are doing some crossing with the Corriedale breed.

**Agricultural Engineering:** Our major research in agricultural engineering has been in the development of improved implements. There have been many attempts to replace the indigenous wooden plow with a steel moldboard plow. The major difficulty here is that while the moldboard plow is a great improvement at one point, in seed-bed preparation (and in turning under green manure) it is much less versatile than the wooden plow. The traditional plow is used for plowing, discing, sowing, and occasionally for interculture as well. What the Indian farmer needs is a complete set of specialized tools and implements.

Our first attempt to provide such a line of implements was the Wah-Wah plow. It consisted of a beam, handle, and frog to which several implements could be attached. These included



a moldboard plow, a duck-foot cultivator, a seeding point and spout, a three or five tine cultivator, and three sizes of middle-busters. The performance of this combination was good, but we found that the interchangeable feature was too far beyond present practice to be readily accepted. Moreover, we learned that greater simplicity of design could be achieved when separate complete implements were attempted. Consequently, we have recently moved in that direction. At present we manufacture and sell five moldboard plows, each designed for a specific purpose and for a particular size of draft animal. We make two types of cultivators for fallow cultivation and for interculture, and two types of seed drills.

In 1949 we turned our attention to problems of harvesting and threshing. The first implement in this line is a winnowing fan which is much simpler, more versatile, and less expensive than any previously available.

Several years ago we conducted extensive investigations into the comparative efficiency of different shapes of yokes and of different methods of harnessing draft animals. We also made a special study to determine whether or not there is a significant correlation between body conformation and draft power in bullocks.

Today, on behalf of the Uttar Pradesh Government, we conduct an Implement Testing Station to measure the efficiency of, and to pass a judgment on the engineering design of implements submitted by private manufacturers in connection with applications for allocation of steel for manufacturing.

In addition, our Department of Agricultural Engineering manages a 40-acre "rain-fed" farm on which it experiments with the mutual adaptation of implement design and field cultural practices under conditions identical with those faced by farmers to whom irrigation facilities are not available.

**Horticulture.** Our research in horticulture has been chiefly in the fields of plant introduction, varietal testing, and experimentation with cultural practices such as tree spacing, and cultivation and irrigation practice.

Quite a large number of economic and ornamental plants are being tried. These include several types of citrus fruits, several types of guavas, the *carob* as an ornamental roadside tree and for cattle and goat feed, hybrid grapes from California, the *jojobe* for goat fodder, and *Amorpha fruticosa* for erosion control, basket material and fuel. Selection work to secure a superior strain of papayas has been going on for some years and is being continued. Pink-fleshed grapefruit, originating from seed of fruits of unknown origin, have grown and borne well and the fruit has been rather more popular than that of three standard American varieties of white-fleshed grapefruit, which are also of excellent quality.

Out of the background of his experience at Allahabad since 1921, W. B. Hayes, Head of the Department of Horticulture, has written a text for university students, *Fruit Growing in India*, which is widely used throughout India.

**Field Cultural Practices.** Field practices of cultivation, varieties of crops, available fertilizers, available implements, and the price structure of the agricultural economy are all inter-related. The Institute is constantly experimenting with new field cultural practices, as these are affected by the other factors. A specially designed plow made plowing possible immediately after the cereal harvest in March. This results in considerable conservation of moisture early in the rainy season and in quick sowing of monsoon crops. Line-sowing in place of broadcasting makes interculture by bullock-drawn implements possible, so we do considerable experimenting with row-spacing and seed rates. We are experimenting now with animal-powered cultivation of growing wheat. Contour irrigation has been introduced to reduce the amount of levelling necessary in bringing new lands under irrigation.

One measure of our success in the combined improvement of implements and of cultural practices, including irrigation, is that whereas the average area commanded by a pair of bullocks on village fields is 4 acres, and the maximum which can be commanded using the old implements is 8 acres, *on the Institute farm*



*we grow 22 acres of crops with each pair of draft animals.*

**Other Research.** In addition to the fields summarized above, the Institute has appreciable research programs in other fields. Varietal tests on field crops, experimentation in methods of grain storage, selected research in plant pathology, methods of analysis of milk and establishment of milk standards for India, studies of the labor requirements of important crops in the district of Allahabad, cost-of-production studies on the Institute farm, and determination of seasonal price fluctuations for important cereals are among these.

This has been our research in the past. When you come to Part V "The Plans of the Institute" you will see that we plan a broader research program for the future, particularly to tackle the problems brought in by our extension staff.

## **B. Resident Instruction**

The Institute has a student body of 325 in 1950. Having successfully completed high school is the prerequisite for all incoming students.

These 300 men and 25 women come from all parts of India. About one-third of them are Christians who come to the Institute partly at least because it is a Christian institution. Another one-sixth are Government appointees who come on scholarships from many of the states of India which have no agricultural colleges of their own. The remaining students also come from, and after graduation return to, all parts of India.

An interesting development has been the way in which the Institute has contributed to the founding of additional agricultural colleges. Today there are five universities and twenty-five junior colleges teaching agriculture in Uttar Pradesh alone where there were none when the Institute first requested permission to open such classes. For about ten years we had six Government scholars from Assam in each class. Then the Assam Government founded a college of its own, taking the Indian head of one of our departments as its Principal, and recruiting

much of its staff from among our alumni. Now for several years we have had several state scholars from Orissa. This year that Government is planning to start its own college and has asked our help in getting it started.

The Institute does not grant any outright scholarships. Instead, it offers part-time employment in its departments to students who need financial help. The department pays the regular commercial hourly rate, and this is matched by an equal amount from a scholarship fund. Thus the student actually receives twice the commercial wage for his work.

Because of the need to teach the dignity of manual labor, and because most of our students have not actually engaged in farm operations before they come, we include a considerable amount of practical work in the program of each student. Every student cultivates a garden of his own during his first year. In subsequent years, he gets experience in the dairy and in field operations.

As was mentioned in the section on Institute strategy, we try to aid each student in developing technical skills, civic understanding, and religious faith.

**Technical Skills:** The Institute offers five curricula:

The Indian Dairy Diploma is awarded to those students who successfully complete a two-year course in practical dairying. This diploma is awarded by the Government of India. There are only two institutions in India which offer this course. One is the Government's own research Institute at Bangalore; the other is the Allahabad Agricultural Institute.

The Intermediate Certificate in Home Economics is granted to women who successfully pass a comprehensive examination after two years' study. It is the curriculum which is followed by our twenty-five women students studying home economics.

The Intermediate Certificate in Agriculture is granted after the first two college years of agriculture. All of our students who intend to continue for the Bachelor's degree must first secure this certificate. The curriculum for it includes a large amount of the basic physical





Students of agricultural  
engineering studying  
surveying.



Students in  
botany lab.



and biological sciences, plus a number of elementary courses in applied agriculture.

The Bachelor of Science Degree in Agriculture is granted after a total of four years in the Institute. Candidates for this degree may specialize in one of three fields: (1) agronomy, (2) animal husbandry and dairying, or (3) pomology.

The Bachelor of Science Degree in Agricultural Engineering is granted after a total of five years in the Institute. This curriculum includes courses in each of the basic fields of engineering as well as applications of engineering to irrigation, farm implements, erosion control, farm structures, engines and motors, and rural roads. Ours is the only institution in India which offers this course.

For purposes of teaching for the two Bachelor's degrees the Institute is recognized as part of the University of Allahabad and certain members of the Institute's staff are accepted as members of the faculty of that state university. In addition to our own courses, a member of our faculty devotes one day per week to teaching post-graduate students in agricultural botany in the University itself.

An indication of the standard of instruction in these fields is the fact that a number of graduates of the Agricultural Institute have been admitted to post-graduate study in their fields in American universities and have done splendid work. Several of them are now studying at Iowa State College. Several have been granted advanced degrees by Ohio State University and the University of Minnesota. One is now at Cornell.

**Education for Citizenship.** Even in the United States, with all of its background of democracy, we have learned that you don't make a young man a good citizen simply by teaching him how to fatten a hog, or how to plan and conduct research in nutrition. We have erred often by producing technicians of great skill but with little real study of public responsibility and with little knowledge of the facts of political life. The civic responsibility of every adult in a free society requires specific preparation and training.

This is immeasurably more necessary in a country like India where the cultural background is authoritarian. The Indian family is authoritarian. The structure of caste is authoritarian. The religious culture is authoritarian.

In the orthodox Indian family it is the oldest male member who makes the decisions. The sole responsibility of other members of the family is to obey. Since sons who marry bring their brides into their father's home and continue to live there, this means that they often continue to be subject to their fathers until they are forty or fifty years of age, when the father dies and the eldest son begins to make the family decisions. As a consequence, most Indian boys of college age have made very few decisions for themselves. Only seldom has one of them had a regular personal allowance. Many of them have not even chosen their own clothes. They have not been educated for freedom.

**Campus Atmosphere.** The major provision which the Institute makes for preparing students to live in a free society is incidental rather than overt. It is the general organization of the Institute and the atmosphere of campus life. Whereas, the faculty of most Indian colleges is formal and aloof, the faculty of the Institute mixes very informally with its students. Classes are conducted informally and free discussion is encouraged. Most instructors teach classes wearing the same clothes in which they work in the dairy, in the workshops, and on the farm.

**Student Government.** Students elect their own officers for the Students' Union, which governs non-academic student life. Discipline in the dormitories, social events, athletic contests, the licensing of campus merchants, and enforcement of provisions for public health are managed by students, operating within the Constitution of the Students' Union.

**Student Societies.** Students are encouraged to organize special interest societies. These include professional clubs in the various fields of agriculture, clubs for drama, photography, music, social service, etc. Practice in



the selection of officers, the planning of programs, the conduct of meetings, and the mediation of internal disputes, all contribute to the experience of students in living democratically. A Social Service League sponsors night schools in nearby villages.

***The Institute Cafeteria.*** Today, 90% of all men students, and several members of the faculty, eat together in one cafeteria. Until a few years ago students ate in many small eating clubs, most of them limited to a certain caste group, or to students from a certain part of India. In 1933 there were fourteen such clubs, each with its own small kitchen, at a table when the total number of students in the Institute was 110.

One attempt at bringing students together in a single eating club failed, but in 1945 a second attempt was made and it succeeded. This has proved to be a great asset in the life of the Institute. It has further eliminated caste restrictions. It has increased both tolerance and understanding. It has discouraged sectionalism and cliques. It has given experience in democratic management. It has led to a better diet for students. It has decreased food waste. It has brought students and faculty together. It has become the center for a greatly expanded social program.

The affairs of this non-profit cafeteria are directed by a manager, with the advice of a representative committee elected by students and staff.

***Discussion of Civic Problems.*** In addition to these arrangements for the general community life of faculty and students, the Institute provides for classroom lectures and discussions related to civic problems. These include visiting lecturers in law, government, public opinion, social psychology, Indian history, foreign affairs, and other related fields. We hope this part of our curriculum will grow until a much better balance of vocational and general education has been achieved.

***Personal and Religious Development.*** This problem of religious understanding is of outstanding importance and complexity in a

country like present-day India. On the one hand, religion is basic to the whole traditional culture of India, yet the content of India's ancient religion is in contradiction to the goals for national development which the Indian people have chosen for themselves. On the other hand, western culture, which has developed the techniques for reaching the goals India now pursues, today tends to ignore the extent to which its zeal for "scientific progress" actually sprang from Judeo-Christian sources, and the degree to which such progress depends for its present vitality on religious attitudes and insights.

The problem is further complicated by the erroneous tendency to look on Christianity as a product of western culture and therefore to associate it with western "political and cultural imperialism," instead of recognizing that western culture owes much of its vitality to the Christianity from which it sprang, but which it did not produce.

In this confused context, realism demands that a project like the Agricultural Institute try to integrate recognition of three facts:

- (1) that there are facts basic to personal maturity and to economic and social progress given to men via the Christian revelation,
- (2) that there are well-established techniques for agricultural development and for the enrichment of rural life available in the experience of modern science, and
- (3) that every man must find his own destiny within the context of the changing culture of the land in which he lives.

This is a formidable task, but to shirk it would be to abandon hope of success in helping bring India through her present transition into a wholesome, progressive culture.

The Institute tries to provide adequate opportunity for the personal and religious development of each of its students. Here again, the most important contribution is through the character of the Institute community in which we seek to combine respect for each individual with recognition of the necessity for an adequate personal faith and with opportunities for growth in religious understanding.

The formal programs designed to promote religious growth are: (1) classroom study,



(2) community worship, and (3) the Student Christian Association.

Participation in classroom religious instruction is optional. (This year sixty per cent of the Institute's students chose to take part.) Classes deal with (1) Christianity and economic problems, (2) Christianity and family problems, (3) the role of the prophet in social progress, and (4) the life and teachings of Jesus.

Community worship is encouraged on a voluntary basis.

The Student Christian Association has its own program of study and of social service in nearby villages.

Beyond these, the faculty of the Institute is currently studying this whole problem and is searching for a more effective integration of vocational, liberal and religious education.

### **C. Extension Service**

The third major area of Institute program is its Extension Service. This is carried on through four activities: (1) extension projects under full-time extension agents, (2) short courses and conferences, (3) publications, and (4) extension counselling.

**Extension Agents.** The Institute carries on three extension projects in different geographic regions. In two cases, these projects are integrated with comprehensive missionary programs. The mission concerned gives the Institute an ear-marked appropriation to finance a program of agricultural extension in its own region. The Institute appoints a full-time extension agent and supervises his work. His tasks are: (1) to give extension aid to individual farmers on their own fields throughout the region, (2) to train rural pastors and school teachers in the introduction of agricultural improvements, and (3) to cooperate with the whole mission program, especially in adult education, short-course training, and exhibitions. Each such extension agent has a small fruit-tree nursery and a foundation flock of poultry. He also has a few fields in which he multiplies improved varieties of seed for distribution to cooperating farmers.

The third project is not in cooperation with a missionary program, but is an experiment in the kind of extension program which the Government might carry on more widely. This project is near the Agricultural Institute. It has a full-time extension agent who confines his attention for the present to five villages.

**Short Courses and Conferences.** Each year the Institute conducts a number of short courses and conferences. One of these is a program of short courses for students in theological seminaries. Students come to these regularly from Leonard Theological College and occasionally from four other seminaries. Most of these men will serve in rural parishes, and therefore need an understanding of the agricultural problems of their people and of the sources of aid available to them both through Government agricultural services and through the Extension Service of the Agricultural Institute.

Other short courses in recent years have been (1) in the use and maintenance of improved implements, (2) the preservation of fruits, and (3) short-term training in animal husbandry.

Conferences are regularly scheduled for teachers of agriculture in high schools and for rural pastors.

**Publications.** The Institute publishes a bi-monthly journal, *THE ALLAHABAD FARMER*. Articles are contributed to this journal by members of the faculty, by students, and by outside authors. We also publish a fortnightly village newspaper, *OUR VILLAGE*, in the dialect of the Allahabad area.

**Counselling.** Perhaps the most effective and far-reaching of the Institute's extension programs is the counselling carried on through correspondence and interviews by members of the faculty. Requests for advice come by mail from all parts of the country. A constant stream of visitors comes to the Institute to see what we are doing and to take up special problems with members of the faculty. In addition, our specialists make many trips on invitation to advise on rural problems.





## IV. THE PRESENT RESOURCES OF THE INSTITUTE

It will be clear from the foregoing that the Allahabad Agricultural Institute is already well established, and that it has valuable resources.

**1. *We have a strong faculty.*** Today there are forty-four Indians, ten Americans and one New Zealander on our faculty. Three of our nine departments have an Indian as Head of the department. Our Registrar, our Treasurer, and seven members of our Board of Directors are Indians. Six Indian members of the faculty have had post-graduate training in America. Five more are studying abroad at the present time.

**2. *We have sound academic connections.*** The Institute is, in effect, the college of agriculture of Allahabad University, a state University of high standing. (Administratively, the Institute is under its own Board of Directors; academically, its university teaching is part of Allahabad University.) We prepare students for the Intermediate Examination in Agriculture and in Home Economics, given by the Board of High School and Intermediate Education of Uttar Pradesh. Our degree students take the Allahabad University examination for the Bachelor of Science in Agriculture or in Agricultural Engineering. We prepare students for the Indian Dairy Diploma of the Government of India. Our graduates may enter Graduate Schools of American universities with full credit for the courses they have taken at the Institute.

**3. *We have a background of forty years of Agricultural teaching and research in India.*** One of our major contributions has been the application of American scientific study of agriculture to Indian conditions and problems. Our experience in this field is bearing fruit now both in classroom teaching and in the series of texts and manuals which our faculty members have prepared.

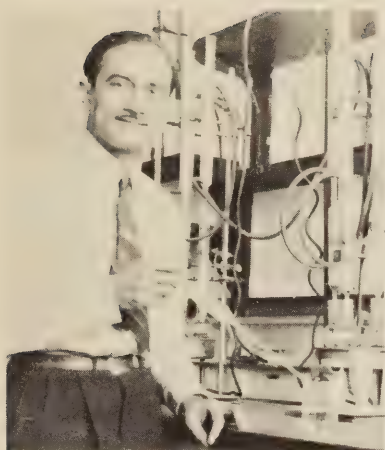
**4. *We have the confidence of the Government of India and of Provincial Governments.*** We receive grants-in-aid from the Central Government and from the Government of Uttar Pradesh. We receive research grants from both for research projects. Members of our faculty are called into consultation by numerous Government committees, commissions, and agencies.

**5. *We have an expanding Extension Service, working directly with farmers.*** One phase of this is the development of a general program of extension which the Government might copy. Another phase is the supervision of Agricultural Advisors to churches and missions in their programs among rural people.

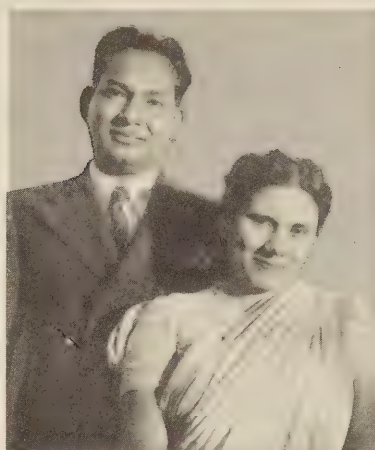
**6. *We have assured support for our current budget.*** The Institute now receives guaranteed annual grants from churches and missions totalling \$35,250. Income from endowment is about \$7,000 per year. In addition, we have established an American office to solicit gifts from individuals and are planning to se-



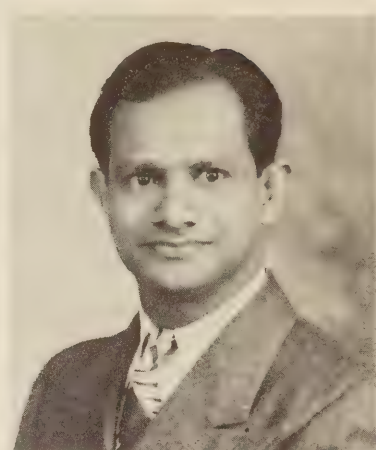
## BUILDING A STRONG INDIAN FACULTY



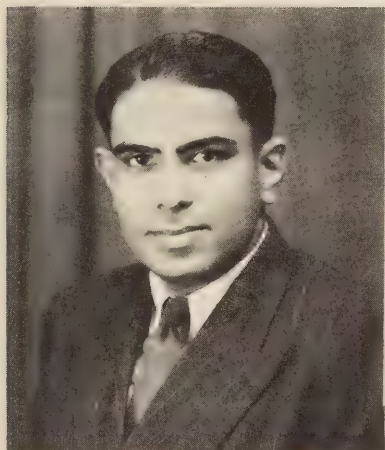
**Cromwell O. Das, Ph.D.**—Associate Professor, Agricultural Chemistry; trained at Allahabad University and Ohio State University. Appointed in 1932.



**Cyril V. Paul**—Assistant Professor, Agricultural Engineering; trained at Railway College, Bombay. Appointed in 1938. Now studying at Kansas State College.



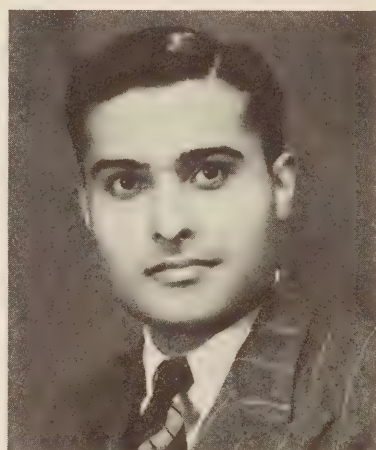
**T. A. Koshy, Ph.D.**—Associate Professor and Head, Agricultural Botany; trained at Allahabad and Ohio State University.



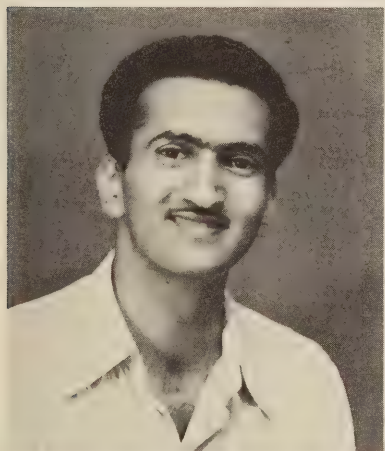
**Henry S. Azariah, M.S.**—Associate Professor and Head, Agricultural Economics; Registrar of the Institute; trained at Allahabad and Cornell. Appointed in 1937.



**Glory (Mrs. H. S.) Azariah, B.S.**—Lecturer, Home Economics; trained at Madras and Cornell. Appointed in 1941.



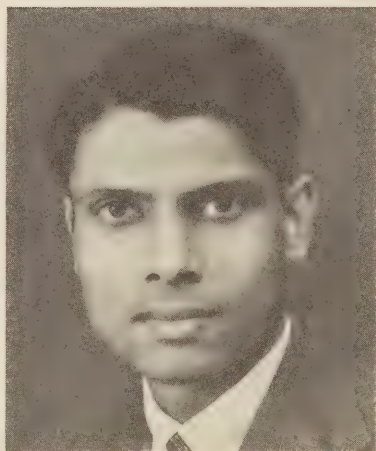
**C. M. Jacob, B.S.**—Assistant Professor, Agricultural Engineering; trained at Patna. Appointed in 1946. Now studying at Iowa State College.



**J. Benedict Chitamber**—Lecturer, Agricultural Extension; trained at Kanpur Agricultural College. Appointed in 1948. Now studying at Cornell.



**Sucy (Mrs. T. A.) Koshy, M.S.**—Lecturer in Nutrition; trained at Allahabad and Ohio State University. Appointed in 1949.



**Julius C. Gideon, M.S.**—Lecturer in Chemistry; trained at St. John's College, Agra, and Government Training College. Appointed in 1937. Now studying at Purdue University.



cure an Indian promotional secretary to begin soliciting gifts from individuals in India.

**7. *We have a carefully prepared Plan of Development for the years 1947-1957.***

This was prepared five years ago and was put into operation. It provides for increasing our student body from 250 to 500. It will add faculty members, particularly for research and for extension. It will carry forward our present policy of increasing the share of Indians in administration.

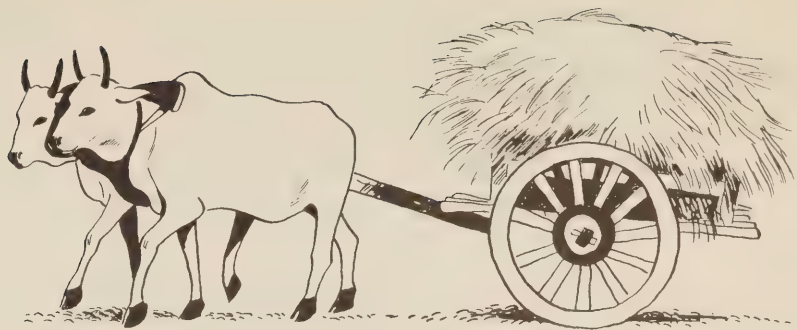
**8. *We have a good start toward an adequate physical plant.*** Our farm of 600 acres is increasing in fertility year by year. More and more of it is being brought under irrigation. Our orchards are becoming more productive. We have a milking herd of 100 cows, and a young-stock herd of 125 animals, as well as flocks of poultry, sheep, goats, and a moderate-sized swine program. The book value of our physical plant as of March 31, 1947, was \$407,214.

Students of home economics in poultry class.





## V. THE PLANS OF THE INSTITUTE



In 1946, a Ten-Year Program of Development was drawn up. The purpose of this program is to develop those phases of the Institute's program which had lagged behind, to bring the whole program into balance at an efficient size, and to give the Institute the stability and equipment it needs for the years ahead.

**Faculty.** The chief asset of any project like the Institute is its faculty. Our Ten-Year Program set out to achieve three of the prerequisites of a strong faculty. One is a salary policy which encourages brilliant men to stay and incompetent or lazy men to leave. The second is a feeling on the part of the faculty that the institution is theirs. The third prerequisite is a faculty of such size in relation to teaching load that members of the faculty will have adequate time for research and extension.

Within the first four years of the Program the first prerequisite—sound salary policy—has been achieved. The second—Indian share in administration—has been achieved. The third is yet to be achieved. Fortunately, our financial position is such that a start can be made on this in the year 1951-52.

**Emphases.** In this Ten-Year Program it is agreed that emphasis is to be placed on the quality of the work done by the Institute rather than on its quantity. Consequently, the major emphasis is on proper equipment for each department and on an adequate faculty for each of the departments already established.

At the same time, certain gaps in our present

activities needed to be filled and some departments strengthened more than others in order to achieve an efficient balance. The provisions for bringing this about are as follows:

1. The development of a strong Department of Extension. This was a part of the original plan for the Institute and some extension activities have been carried on from the first. But up to 1946 most of the Institute's resources were needed to provide adequately for resident instruction. The Extension Program described on earlier pages indicates the beginning which has been made since 1946. By 1957 we should have eight full-time persons on the staff of the Department instead of the present two.
2. Development of a Degree Course in Home Economics. We have had a junior college course for women for fourteen years. Now we hope to offer full university training. Child development and nursery school management have been chosen as the first fields to receive attention. By 1957 we hope to have 100 students of home economics.
3. Addition of a Department of Rural Sociology. We recognize the weakness of our program in not including rural sociology. We need it not only to help balance the curriculum but to buttress the extension service and to begin research. It is included in the Ten-Year Program.



4. Addition of a Chaplain and of an Instructor in Physical Education. Prior to 1947, these activities were entirely dependent on voluntary extra service on the part of certain faculty members. Since 1947 both positions have been filled by full-time persons.

**Size.** While placing our major emphasis on balance in the institution and quality of work, it is necessary in planning to decide on a size of institution, at least for the immediate future.

The Institute's decision on this point is to plan for 500 students (400 men in agriculture and 100 women in home economics), and for a faculty of 75.

With the present great pressure for expansion (we turn away three students for every one admitted) it would be easy to have a much larger student body. But to retain independence of policy we must forego government grants for building purposes. Also, we must keep the Institute within a budget which its supporters can meet. In addition, if a balance is to be maintained between research, teaching, and extension, the size of the student body must be limited.

At the size chosen these conditions can be met and there is hope of the Institute's being supported largely by Indian contributions within a reasonable time.

Students of agricultural engineering practicing adjustment of agricultural implements.







## VI. THE NEEDS OF THE INSTITUTE

Let us recall a paragraph from the Foreword to this brochure:

"The Institute has made outstanding contributions to Indian agriculture and rural life since it was founded by Sam Higginbottom forty years ago. Today it has many, but not all, of the resources needed to make much greater contributions in the future."

In Part IV we have outlined the present resources of the Institute. What are the resources which are still needed? There are three: (1) buildings, (2) equipment, and (3) financial reserves.

**Buildings.** The program of the Institute has grown far beyond its buildings. First priority was given to laboratories and to residential quarters for students. Even these are now inadequate. The present Science Building would be fully used by one-third the present number of students. Administrative offices are temporarily located in dormitory rooms. The library and auditorium are both intruders in the building designed for agricultural engineering, as are facilities for agronomy and horticulture. There are no proper facilities for teaching in animal husbandry and dairying except one outgrown creamery lab.

To meet these needs the following building program is now projected:

### BUILDING NEEDS

Science Building and Fixtures.....	\$100,000
Dairy Building and Fixtures.....	100,000

Faculty Housing (20 units).....	86,300
Home Economics Buildings.....	83,200
Dormitory \$33,000; Laborato-	
ries \$17,000; Faculty Houses	
(4) \$13,200; Classrooms	
\$10,000; Nursery School \$10,000	
Men's Dormitory (completion).....	50,000
Library .....	25,000
Extension Building .....	17,000
Administration Building .....	10,000
Horticulture Building	
(completion) .....	10,000
Agronomy Building (completion)..	8,000
Maintenance Workshops .....	6,750
Student Workshop (completion)..	5,000
Homes for Dairy Laborers.....	3,300
Flood Control .....	3,300
Roads .....	3,300
<b>Total Building Needs.....</b>	<b>\$511,150</b>

Since January 1950, the Institute has had a qualified architect on its staff and plans for these buildings are now being drawn. A professional American firm has been retained to plan our campus.

**Equipment.** New and larger laboratories will require additional equipment. The most urgently needed basic equipment can be secured for about \$157,000, as follows:

### EQUIPMENT NEEDS

Administration .....	\$2,000
Agricultural economics .....	1,500
Agricultural engineering .....	43,000
Agronomy .....	7,500
Animal husbandry and dairying.....	16,500
Biology .....	7,300
Chemistry .....	17,000
Extension .....	8,300
Health .....	7,000
Home economics .....	13,000



<b>Horticulture</b> .....	<b>23,500</b>
<b>Library</b> .....	<b>1,000</b>
<b>Physical Education</b> .....	<b>1,000</b>
<b>Religious activities</b> .....	<b>6,300</b>
<b>Sociology</b> .....	<b>1,000</b>
<b>Physical Plant maintenance equipment</b> .....	<b>1,700</b>
	<b>\$157,600</b>

**Financial Reserves.** The Institute needs a Reserve Fund for two purposes: (1) to tide over temporary periods of decreased income, and (2) to insure continuation of the Institute's program during years of transition to dependence on Indian support.

The sources of current income for the Institute are: (1) student fees, (2) government grants, (3) endowment income, (4) contributed missionary salaries, (5) gifts and donations, and (6) miscellaneous. Because such a large part of this current income is from gifts and donations, as shown in the table below, fluctuations in annual income must be expected.

	<i>Percentage of total Current Income</i>
<b>Student Fees</b> .....	<b>16%</b>
<b>Government Grants</b> .....	<b>15%</b>
<b>Endowment Income</b> .....	<b>9%</b>
<b>Contributed Missionary Salaries</b> ..	<b>14%</b>
<b>Gifts and Donations</b> .....	<b>45%</b>
<b>Miscellaneous</b> .....	<b>1%</b>
	<b>100%</b>

From the time of its founding the vision of the Institute has far exceeded its resources. A consequence has been that while both its program and its resources have grown steadily the Institute has not accumulated reserves which might be drawn on in times of need, and its program has had to fluctuate with its income. Beyond a certain point this is not healthful.

To meet this need, the Institute is seeking a Reserve Fund of \$331,250. This fund will be invested. Normally, the interest on the fund will be available for expenditure on either capital or current account. In years in which current income falls below the approved budgeted amount, the Board of Directors will have authority to meet as much of the deficit as it deems wise by drawing on the principal of the

Reserve Fund. This should not be considered an unusual procedure, for it is the purpose of the Fund to meet fluctuations in income rather than to serve as a permanent endowment.

This Reserve Fund will be about four times the present annual expenditures of the Institute, or about nine times the present annual income from gifts and donations. It should therefore guarantee the program of the Institute for the next fifteen to twenty-five years. During that period an effort will be made to develop substantial support for the Institute by individuals and organizations within India.

**Summary.** The sum of these needs for buildings, equipment, and a reserve fund is \$1,000,000. The initial grant of \$100,000 toward this amount has been received from the Harvard-Yenching Institute.

When these new facilities have been secured the Institute will have modest but adequate tools with which a community of 75 faculty and 500 students can go ahead efficiently with the projects outlined in this brochure.

The Institute will then be a well-organized, stable institution within the continuing stream of Indian life. It will demonstrate the value of a well balanced program of research, teaching and extension. It will demonstrate the value of an international faculty. It will be realistic in recognizing that its students are going to be citizens, and sons and daughters of God, as well as technicians. It will have the independence of an institution free of political control.

Even then it will continue to be dependent from year to year on individuals and missionary societies which believe it important enough to support. That is as it should be. But it will have the buildings, the equipment, and the reserve fund which it badly needs and which are beyond the means of its normal supporters.

This brochure is an appeal for contributions toward the \$1,000,000 needed for the buildings, equipment, and reserve fund detailed above.

We need your help and sincerely believe that funds used as outlined here will be highly productive.



## NOTE

This request is not presented without awareness of the preference of many foundations and individuals to finance specific action programs, rather than to provide buildings, equipment, or financial stability. We submit that the validity of such a preference depends upon the stage of development (1) of an institution, and (2) of the culture in which it is located. In America today there are hundreds of well-founded private institutions in a position to accept and utilize specific grants for special projects. They already have the laboratories and the highly developed central administration to care for such projects. We at the Agricultural Institute are continually confronted with opportunities to undertake special projects but many of them are beyond our present facilities of equipment and administration. Our present need is for buildings, equipment, and financial stability. Once we have those, we shall be in a position to undertake a much larger program of special projects.

In America, numerous private institutions have wide constituencies of alumni and friends to whom they may appeal for gifts for buildings and equipment. Our alumni are still young, and are in a scientific field where few of them become wealthy, and those individuals in India who have wealth have not yet become aware of the value of gifts to such institutions.

It is not only the present stage of development of the Agricultural Institute, but also the present stage of development of the whole culture of India which deserves consideration. There are still comparatively few private scientific institutions in India. Particularly in the field of agriculture, India needs the example of institutions in which research, university teaching, and extension are combined and integrated. Even her government agricultural institutions do not have the degree of emphasis on extension which has been proved so valuable in America.

*Before there can be specially financed projects carried on by established institutions, there must be established institutions.* Some parts of the world do not yet have enough of these. India needs a strong Allahabad Agricultural Institute.

The conclusion to be drawn from these facts is that, however valid the preference for restricting grants to action programs may be under American conditions, the stage of development both of the Agricultural Institute and of the culture of India is such that the kind of help herein requested is the type which is most needed and which would be most highly fruitful at the present time.



# ALLAHABAD AGRICULTURAL INSTITUTE

## Summary of Budget — 1951-52

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<i>Resident Instruction</i>			
<b>Income:</b>		<b>Expenditures:</b>	
Student fees	\$12,580	Administration	\$16,680
Government grants	9,980	Operation Physical Plant	2,800
	<u>\$22,560</u>	Instructional Expense	45,700
Net expense to Institute	48,000	Library Expense	1,530
		Extra-Educational Expense	3,850
	<u>\$70,560</u>		<u>\$70,560</u>

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<i>Farm Activities</i>			
<b>Income:</b>		<b>Expenditures:</b>	
Agronomy	\$25,400	Agronomy	\$19,000
Animal Husbandry	14,800	Animal Husbandry	18,100
Dairy	26,300	Dairy	23,300
Horticulture	3,000	Horticulture	2,400
			<u>\$62,800</u>
		Net income to Institute	6,700
	<u>\$69,500</u>		<u>\$69,500</u>

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<i>Research</i>			
<b>Income:</b>		<b>Expenditures:</b>	
Animal Husbandry	\$ 650	Animal Husbandry	\$1,480
Horticulture	40	Horticulture	840
Engineering	2,120	Engineering	2,225
	<u>\$2,810</u>	Agronomy	1,370
Net expense to Institute	3,420	Agri. Economics	105
		Biology	105
	<u>\$6,230</u>	Chemistry	105
			<u>\$6,230</u>

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<i>Extension</i>			
<b>Income:</b>		<b>Expenditures:</b>	
Disciples Project	\$1,500	Disciples Project	\$1,500
Presbyterian Project	1,500	Presbyterian Project	1,500
Agri. Journal	350	Agri. Journal	510
	<u>\$3,350</u>	Farmers Fair	160
Net expense to Institute	3,070	General Extension	2,750
	<u>\$6,420</u>		<u>\$6,420</u>

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<i>Semi-Educational</i>			
<b>Income:</b>		<b>Expenditures:</b>	
Net expense to Institute	\$ 870		\$2,460
	1,590		
	<u>\$2,460</u>		<u>\$2,460</u>

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***Auxiliary Activities***

(Book store, dormitories, supply service, faculty housing, etc.)

<b>Income:</b>	<b>\$52,300</b>	<b>Expenditures:</b>	<b>\$52,590</b>
Net expense to Institute	290		
	<u>\$52,590</u>		<u>\$52,590</u>

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***Equipment and Capital Budget***

<b>Income:</b>		<b>Expenditures:</b>	
Depreciation from		Departmental Equipment	\$1,450
Operating Accounts	\$1,060	Council Emergent Items	700
Book grant-Harvard-		Book Purchases	2,120
Yenching	2,120	Orchard development	1,800
Sale of livestock	210	Raising female young	
		stock	3,200
	<u>\$3,390</u>	Laboratory Equipment	2,000
Net expenses to Institute	18,110	Administrative Equipment	2,830
		Extension Equipment	1,150
		Oxen Purchase	850
		Buildings (completion)	3,600
		Land and well improve-	
		ment	1,800
	<u>\$21,500</u>		<u>\$21,500</u>

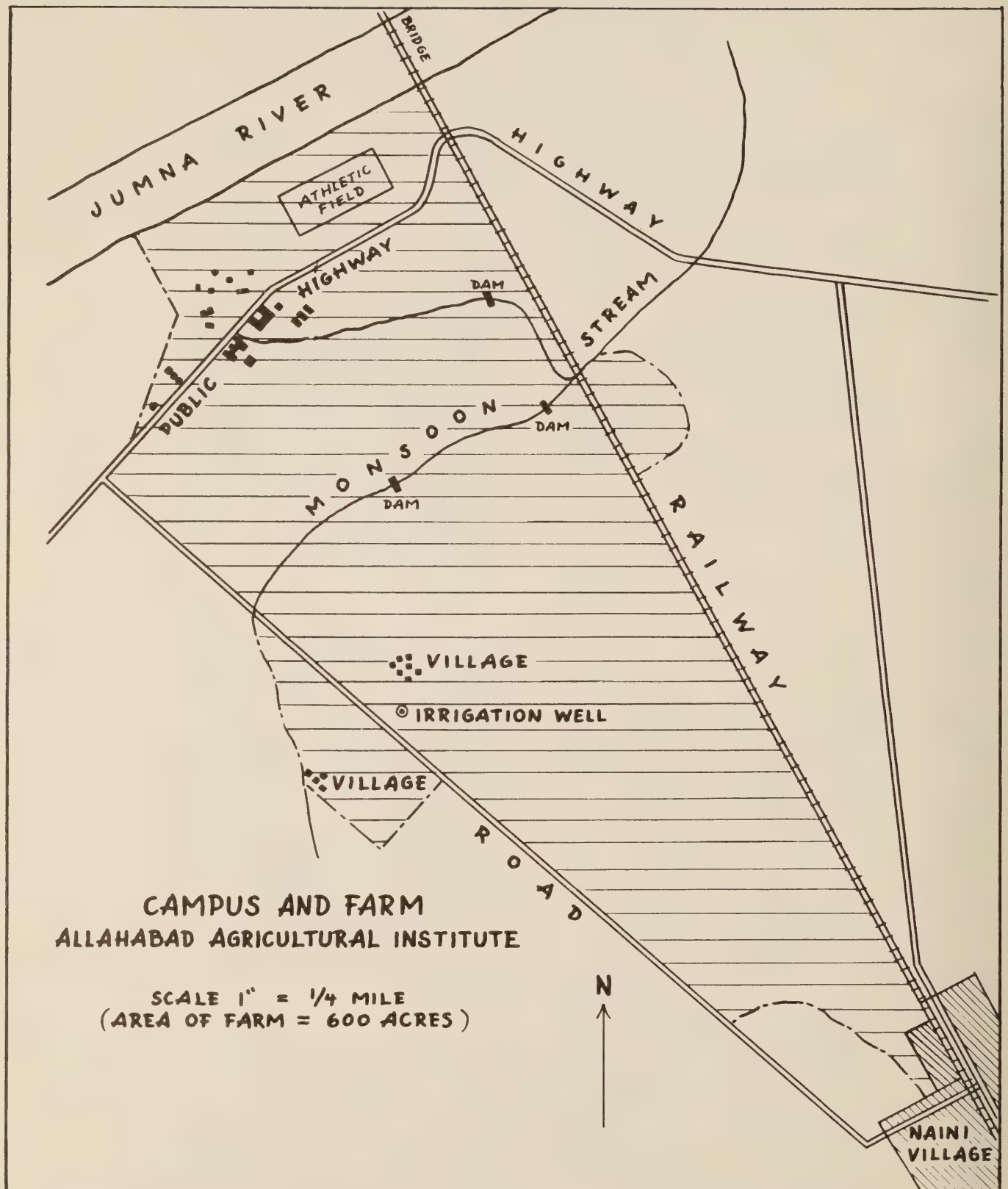
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***Institute General Account***

<b>Income:</b>		<b>Expenditures:</b>	
Net income from Farm		Net expense on	
Activities	\$ 6,700	instruction	\$48,000
Endowment income	6,440	Net expense on research	3,420
From Mission Societies:		Net expense on extension	3,070
Contributed		Net expense on	
Staff	\$16,610	equipment	18,110
Cash grants	10,260	Net expense on Semi-	
		educational activities	1,590
	26,870	Current funds interest	890
Gifts from individuals		Net expense on Auxiliary	
and groups:		Activities	290
From U.S.A.	\$ 1,040		
From India	210		
	1,250		
From Foundations	20,000		
Harvard-Yenching salary			
grant	1,000		
Miscellaneous in India	1,515		
	<u>\$63,775</u>		
Budgeted deficit*	11,595		
	<u>\$75,370</u>		<u>\$75,370</u>

\*Of this budgeted deficit, \$6000 had been met by unbudgeted income up to July 31, 1951

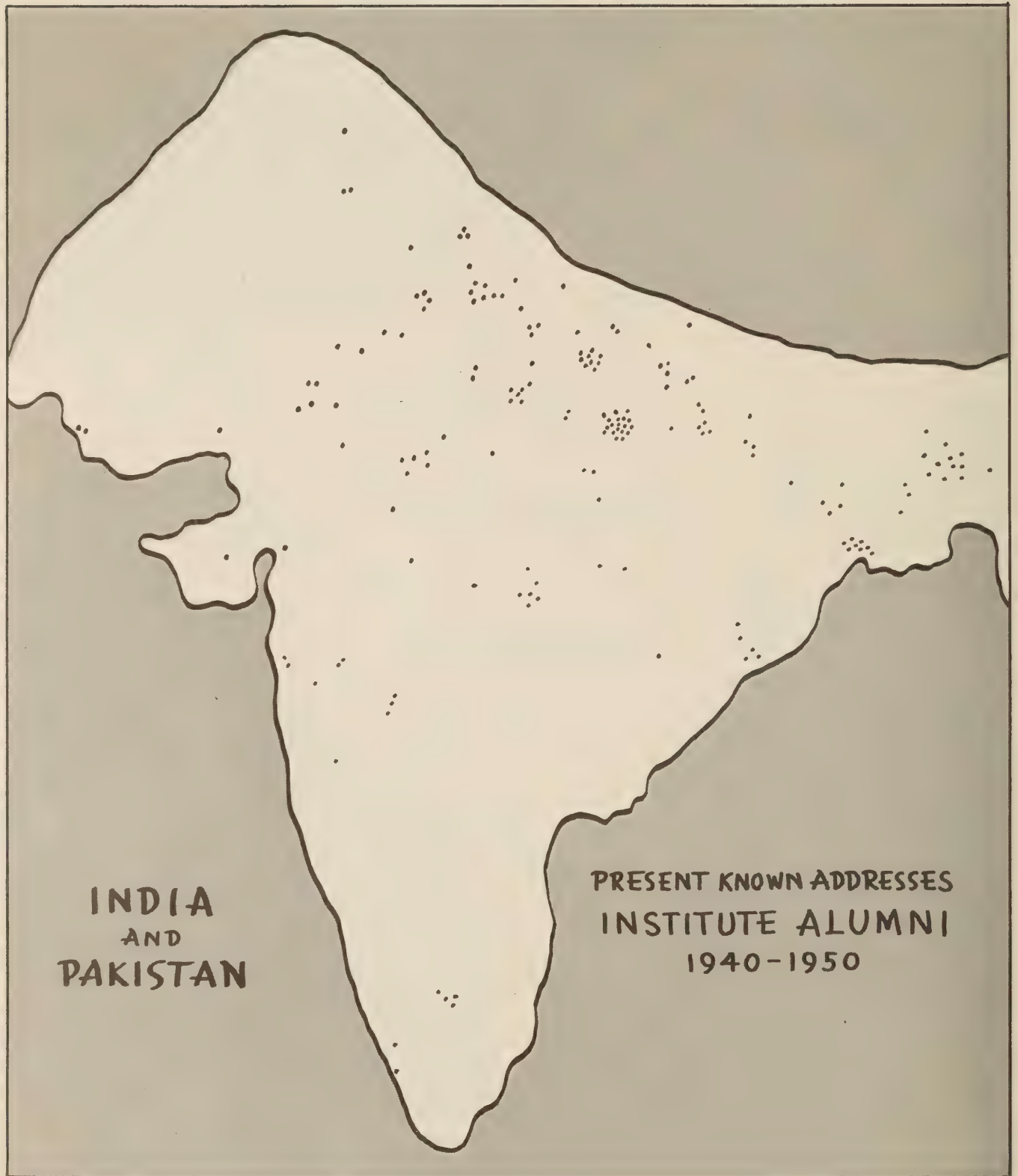














**PRESENT POSITIONS OF SOME OUTSTANDING GRADUATES**  
of  
**Allahabad Agricultural Institute**

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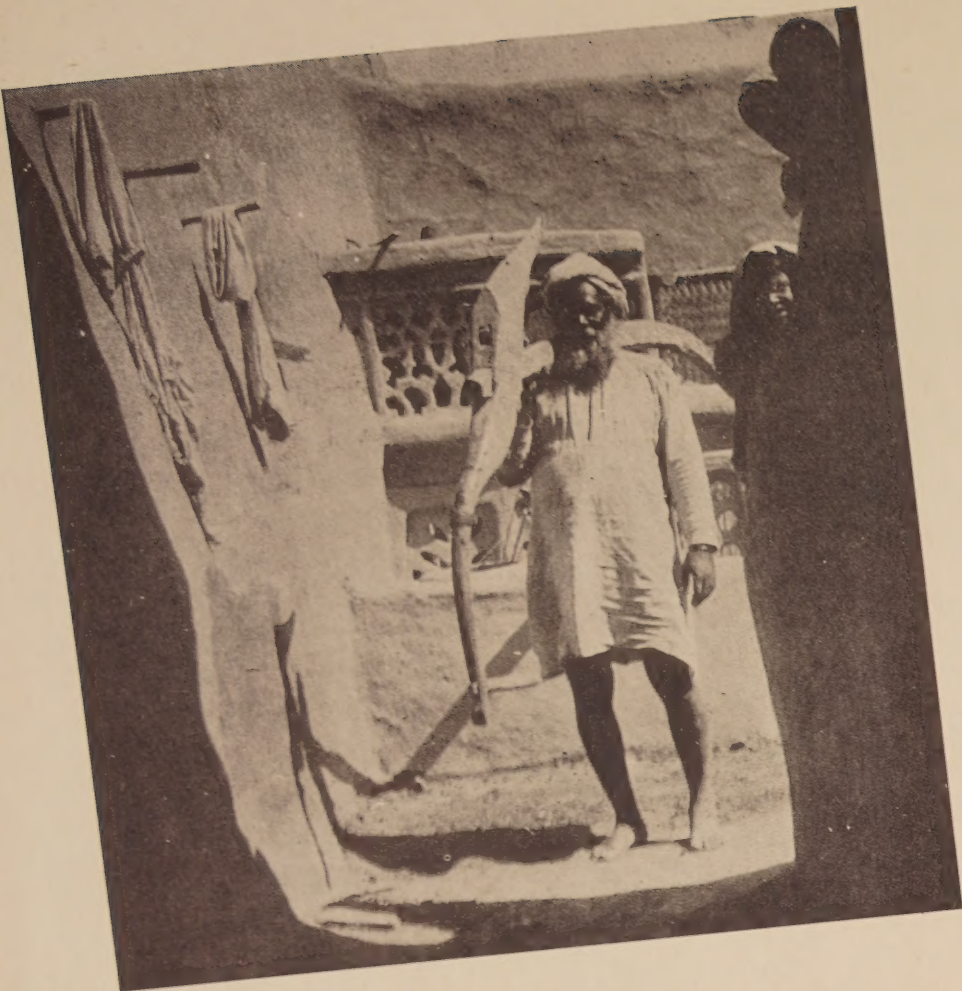
<b>N. R. Joshi</b>	Animal Husbandry Adviser, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy	1925
<b>H. S. Azariah</b>	Head of Agricultural Economics Department, Agricultural Institute, Allahabad	1937
<b>Dr. T. A. Koshy</b>	Head of Biology Department, Agricultural Institute, Allahabad	1937
<b>Dr. A. D. Chand</b>	Principal, Amar Singh College, Lakhaoti, Bulandshahr, U. P.	1935
<b>Dr. A. D. Rathore</b>	Director, S.K.N. Agricultural Institute, Jobner, Jaipur, Rajasthan	1936
<b>D. J. Gandhi</b>	Agricultural Engineer, Government of India, New Delhi	1930
<b>M. K. Nandy</b>	Agricultural Engineer, Research, U. P. Government	1940
<b>Dr. S. R. Barooah</b>	Economic Botanist to the Government of Assam, Agricultural College, Jorhat, Assam	1940
<b>P. N. Prasad</b>	Deputy Director of Agriculture, Bihar, Patna	1934
<b>T. B. Nigam</b>	Deputy Director of Agriculture, Rewa State, V. P.	1946
<b>A. T. Sanyal</b>	Agronomist, Jute Agricultural Research Institute, Hoogly, West Bengal	1935
<b>Kuldip Singh</b>	General Manager, Edward Keventer Ltd. (dairy) Taradevi, Simla West	1938
<b>P. Roy</b>	Managing Director, Bengal Dairy and Farm Ltd., Calcutta	1933
<b>N. Prasad</b>	Fisheries Development Officer, Bhopal	1942
<b>G. C. Gupta</b>	Entomologist, Government of Orrissa, Cuttack	1946
<b>S. S. Bhatia</b>	Dairy Development Officer, U. P. Department of Animal Husbandry, Lucknow	1930
<b>S. T. Ekka</b>	Superintendent, Haryana Cattle Breeding Farm, Dumraon, P.O. & Dist. Shahabad, Bihar	1940
<b>M. H. Khan</b>	Agricultural Engineer to the Government of West Punjab, Lyallpur, Pakistan	1945
<b>Shron Singh</b>	Assistant Deputy Director of Agriculture, Partially Excluded Areas, Shillong, Assam	1942
<b>J. R. Bhadola</b>	Assistant Professor of Agricultural Engineering Central College of Agriculture, New Delhi	1944
<b>S. L. Ranjitkar</b>	Assistant Horticulturist to the Government of Nepal, 7/97 — Jaisidewal, Majecpat, Katmandu, Nepal	1941



<b>S. V. Arya</b>	Assistant Professor of Agricultural Engineering, Banaras Hindu University, Banaras	1946
<b>G. D. Singh</b>	Farm Manager, Agricultural Institute, Allahabad	1945
<b>D. Sundaresan</b>	Animal Husbandry Department, Agricultural Institute, Allahabad	1946
<b>S. R. Biswas</b>	Dairy Manager, Agricultural Institute, Allahabad	1934
<b>C. S. Bhatnagar</b>	Farm Superintendent, Government Farm, Bhilware, Rajasthan	1949
<b>Komal Rai</b>	Farm Superintendent, Government Agricultural Farm, Kuraghat, Gorakhpur	1948
<b>G. D. Smith</b>	Assistant Farm Manager, Mission Farm, P. O. Vadala Mission Ahmednagar	1945
<b>B. K. Bose</b>	Manager, Government Agricultural Farm, P. O. Midnapur, West Bengal	1943
<b>N. D. Adhikary</b>	Lecturer in Horticulture, Assam Agricultural College, Jorhat, Assam	1941
<b>Sushil Chandra Agrawal</b>	Lecturer, Government Agricultural College, Kanpur, Kanpur, U. P.	1948
<b>Ganga Bikram Sijapati</b>	Secretary, Board of Agriculture, Katmandu, Nepal	
<b>S. N. Singh</b>	Lecturer, Government Agricultural College, Kanpur, U. P.	
<b>M. P. Singh</b>	Horticulturist, Madhya Pradesh, Nagpur, M. P.	







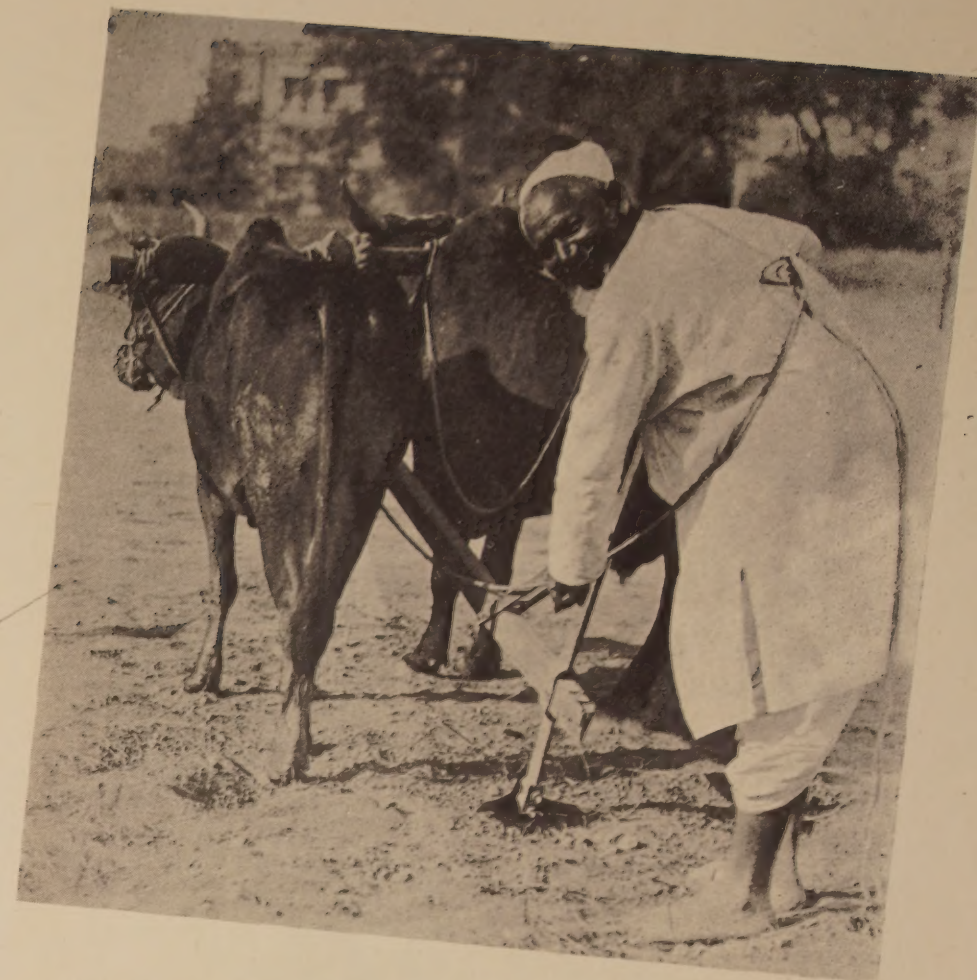
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*and had depended for milk on poorly fed scrub cows...*



*would you not welcome a chance to learn dairy husbandry on a farm where improved cows are being developed...*



*and to be trained in agricultural engineering by men who have developed a light steel plow to fill the needs of your home land?*

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PRIME MINISTER,  
INDIA.



New Delhi,  
15th July, 1948.

Message.

I send through my colleague, Dr. John Matthai, my good wishes to the Allahabad Agricultural Institute. I have known this Institute for a quarter of a century now and appreciated the good work it has done.

I understand that the Institute is launching out now on new courses of instruction and new forms of social activity. I welcome this new approach and I hope that it will bear fruit in the future.

Jawaharlal Nehru



